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IN THE CLAIMS:

Please cancel claims 9-17, amend claims 1-8, and 18-20 and add new claim 21 as follows:

1. (Currently amended) Measuring probe for measuring high frequencies, comprising:

a contact end for contacting planar structures and a co-axial cable end for connection to a co-axial cable;

a co-planar conductor structure having at least two conductors arranged between the contact end and the co-axial cable end; and

a solid dielectric mounting the co-planar conductor structure, the dielectric being arranged on (a) the co-planar conductor structure, ~~the dielectric being arranged on~~ and (b) at least one side of the co-planar conductor structure in a central section of the probe so the dielectric is between and spaced from the co-axial cable end and the contact end, each conductor in the co-planar conductor structure including a portion formed to be individually free in space and resilient in relation to the dielectric, a respective gap being formed between each pair of conductors in the co-planar conductor structure from the co-axial cable end to the contact end in such a way that a constant characteristic impedance is obtained from the co-axial cable end to the contact end, the ground plane conductor and the signal conductor being mounted in the same plane of the solid dielectric.

2. (Currently amended) ~~Measuring~~ The measuring probe according to of claim 1, wherein the respective gap is wider in the region where the conductor structure is mounted on the dielectric than in the portion of the co-planar conductor structure that is formed to be individually free in space and resilient in relation to the dielectric.

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3. (Currently amended) Measuring The measuring probe according to of claim 1, wherein the dielectric includes at least one block of quartz.

4. (Currently amended) Measuring The measuring probe according to of claim 1, wherein a face of the dielectric that contacts the co-planar conductor structure includes a metal coating that is electrically connected to the co-planar conductor structure and has substantially the same shape as the co-planar conductor structure.

5. (Currently amended) Measuring The measuring probe according to of claim 1, wherein the dielectric is metallised over its full area on a side thereof remote from a face of the dielectric that contacts the co-planar conductor structure.

6. (Currently amended) The measuring Measuring probe of according to claim 1, further including a planar circuit arranged at the co-axial cable end.

7. (Currently amended) The measuring probe of claim 6, wherein the planar circuit includes at least one active circuit element.

8. (Currently amended) The measuring probe of claim 1, wherein the dielectric is on both sides of the co-planar conductor structure.

9.-17. (Canceled)

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18. (Currently amended) ~~Measuring~~ The measuring probe according to of claim 4, wherein the dielectric is metallised over its full area on a side thereof remote from the face of the dielectric that contacts the co-planar conductor structure.

19. (Currently amended) The measuring probe of claim 8, wherein each side of the dielectric has a face that contacts the co-planar conductor structure and includes a metal coating that is electrically connected to the co-planar conductor structure and has substantially the same shape as the co-planar conductor structure.

20. (Currently amended) ~~Measuring~~ The measuring probe according to of claim 19, wherein the dielectric is metallised over its full area on sides thereof remote from the faces of the dielectric that contact the co-planar conductor structure.

21. (New) The measuring probe of claim 1, wherein the portion of each conductor that is free in space and resilient and the portion of each conductor mounted by the dielectric is one piece.